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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,704	07/25/2003	Piero Perlo	Q76659	2684

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EXAMINER

SWIATEK, ROBERT P

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/626,704

Applicant(s)

PERLO ET AL.

Examiner

Robert P. Swiatek

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-18 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4-13-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5-10, 14, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Velton (US 3,584,810). The Velton VTOL aircraft includes first and second rotors 88, 60 disposed in respective cowls 90, 72, a vertical fuselage 12 of tubing, first and second internal combustion motors 44, 42, control vanes or flaps 64, 65, 70, 76, 96, 98, and control elements for the motors 42, 44 (see column 3, lines 60-63, of Velton). As to claim 5, a small human—such as a child—could stand erect within pilot compartment 28. With respect to claim 10, the control elements of Velton *could be* operated with an inertial navigation system—it is noted this element has not been positively recited.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 11, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Velton. Use of a fuselage 12 with Velton in the form of a teardrop configuration, while not disclosed, nonetheless would have been obvious to one skilled in the art seeking to minimize drag during

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operation of the aircraft. With regard to claims 11, 12, the relative sizes of the rotors with respect to one another would have been obvious to one skilled in the art wishing to vary the handling characteristics of the aircraft.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Velton in view of Tinajero et al. (US 3,128,970). The Velton aircraft employs a gas tank 34 to supply engines 42, 44; the structural elements comprising fuselage 12 are not used as fuel storage locations. It would have been obvious, however, to collectively employ the tubing forming the fuselage 12 of Velton as a fuel tank, in view of the teaching to Tinajero et al. that structural components of a vehicle can serve to contain and conduct a fluid to locations where it is needed (see element 57 and column 3, lines 35-45, of Tinajero et al.).

Claims 13, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Velton in view of Johnston et al. (US 4,037,807). While the blades comprising each of the rotors 60, 88 of Velton are planar, it would have been obvious to one skilled in the art to angle the blades of the upper rotor 88 of Velton, in view of the patent to Johnston et al. that angling increases the ability of the rotor to draw air through the cowl, enhancing the propulsive thrust.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Velton in view of McGonigle et al. (US 5,575,438). The Velton aircraft lacks an inertial navigation system. However, it would have been obvious to one skilled in the art to provide it with such a system, in view of the patent to McGonigle et al. that this enables the aircraft to successfully fly preprogrammed flight routines without the need for pilot intervention (see element 32 and column 12, lines 31-37, of McGonigle et al.).

Claims 8-10, 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. In claim 8, line 4, the phrase "selected among a" is unclear and should be changed to --selected from the group consisting of--; in line 6, "materials selected among" is unclear and should be changed to --materials selected from the group consisting of--; in claim 9, lines 1, 2, "said actuator means" lacks a prior antecedent basis.

Claims 1-18 are objected to because of the following informalities: In claim 1, line 1, "VTOL" should be replaced with --Vertical takeoff and landing (VTOL)--; in line 8, --said-- should be inserted before "annular," in line 9, "rotor" should be changed to --rotors--; in claim 15, line 2, "ono" should be deleted; in claim 18, line 2, "blade" should be changed to --blades--. Appropriate correction is required.

Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The disclosure is objected to because of the following informalities: On page 5, line 33, --can be-- should be inserted after "flaps" and "to" should be deleted; it is unclear from a reading of page 5, line 35, exactly what Figure 8 of the drawing depicts, especially since two of the so-called alternative solutions appear to be identical; on page 6, line 18, "in generally" should be changed to --in general--; on page 8, line 28, "in" should be changed to --on--.

Appropriate correction is required.

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The patent to McPherran (US 2,043,704) has been cited to provide an additional example of an aircraft.

RPS: 1703/308-2700
19 May 2004

Robert P. Swiatek
ROBERT P. SWIATEK
PRIMARY EXAMINER
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